 F.A.U. SECTION				COUNTY	TOTAL SHEETS	SHEET NO.
8873	00-00012-00	0-PK		MADISON	18	17
FED. ROAD DIST. NO.		ILLINOIS		FED. AID F		

CONTRACT NO. 97270

## GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE DRAWINGS AND REPORT ANY DISCREPANCY TO THE ARCHITECT.
- SEE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ANY FLOOR AND ROOF DPENINGS, TRENCHES, PITS, PIPE SLEEVES, CHAMFERS, ANCHORS, MISCELLANEOUS STEEL ETC. WHICH WILL BE REQUIRED.
- COST OF FURNISHING ALL LABOR, AND MATERIALS NECESSARY AND REQUIRED TO SATISFACTORILY COMPLETE THE VORK FOR THE PASSENGER SHELTER AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS SHALL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR "PASSENGER SHELTER," PER LUMP SUM.

## CODES AND STANDARDS

BUILDING: 2003 INTERNATIONAL BUILDING CODE

CONCRETE: 1. FOR REINFORCED CONCRETE - ACI LATEST EDITION
2. FOR CONCRETE MASSINRY STRUCTURES ACI 531 - LATEST EDITION
3. CRSI HANDBOUK
4. CONCRETE DETAILS - DESIGN, DETAILING FABRICATION AND ERECTION SHALL
COMPLY WITH THE ACI "MANUAL DE STANDARD PRACTICE FOR DETAILING
REINFORCED CONCRETE" AND "SPECIFICATION FOR STRUCTURAL CONCRETE FOR
BUILDINGS

STRUCTURAL STEEL: AISC 'SPECIFICATIONS FOR DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS' - LATEST EDITION.

WELDING: AMERICAN WELDING SUCIETY (AWS) "STRUCTURAL WELDING CODE"

COLD FORMED STEEL: AISI "SPECIFICATIONS FOR THE DESIGN OF COLD - FORMED STEEL STRUCTURAL MEMBERS" - LATEST EDITION

# DESIGN LOADS

DESIGN LOADS

FLOOR LIVE LOADS: SLAB ON GRADE	=	125 PSF	
ROOF LIVE LOAD	=	20 PSF	
RDDF SNDW LDAD; GROUND SNDW LDAD (PG) SNDW EXPOSURE FACTOR (CE) SNDW LDAD IMPORTANCE (D) RDDF THERMAL FACTOR (CT)	=	20 PSF 0.9 1.0 1.2	
WIND LOAD:  BASIC WIND SPEED (3 SECOND GUST) EXPOSURE C WIND LOAD IMPORTANCE (1)		90 MPH 1.0	
EARTHQUAKE LDAD SEISMIC USE GROUP I SPECTRAL RESPONSE COEFFICIENT S DS S DI SITE CLASS C BASIC SEISMIC FORCE RESISTING SYSTEM MOMENT FRAME ANALYSIS PROCEDURE	=	0.48 0.19  EQUIVALENT LATERAL FORCE PROCEDURY	
MUMP 1919 LYDCEBOKE	-	CROTAMETER FRIEWAL LAKEE LKREEDOKE	

## FOUNDATIONS

- THE FÜUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT PREPARED BY QUALITY TESTING AND ENGINEERING, INC. DATED OCTOBER 12, 2005 AND ADDENDUM DATED NOVEMBER 25, 2005.
- FOOTINGS SHALL BEAR ON UNDISTURBED EXISTING FILL MATERIAL OR NEWLY PLACED LEAN CONCRETE IN ACCORDANCE WITH THE ABOVE REFERENCED GEOTECHNICAL REPORT CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 2,500 PSF, UNDER FULL SERVICE AND DEAD LOADS.
- 3. ALL BEARING MATERIAL FOR SUPPORTING FOOTINGS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THEIR CONSTRUCTION. THE GEOTECHNICAL ENGINEER SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. THE CONTRACTOR SHALL NOTIFY THE OWNER (3) VORKING DAYS IN ADVANCE FOR INSPECTION BY THE GEOTECHNICAL ENGINEER.
- 4. DO NOT BACKFILL UNTIL CONCRETE HAS REACHED ITS 28 DAY STRENGTH.

## CONCRETE AND REINFORCING

- REINFORCED CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- 2. ALL REINFORCING STEEL SHALL BE GRADE 60, 60,000 PSI YIELD POINT DEFORMED BARS IN ACCORDANCE WITH THE LATEST ASTM SPECIFICATIONS.
- 3. MINIMUM CONCRETE PROTECTION. SEE TABLE BELOW

<u>ITEMS</u>	MINIMUM COVER (IN.)
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
B. CONCRETE EXPOSED TO EARTH WEATHER OR SEVERAGE #6 THRU #18 BARS #5 BARS OR SMALLER	2 2 1/2
C. BEAMS AND COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, OR SPIRALS	1 1/2
D. CONCRETE NOT EXPOSED TO WEATHER, SEWAGE OR IN CONTACT WITH GROUND #14 AND #18 BARS #11 BAR AND SMALLER	1 1 1/2

- ALL REINFORCING BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS BOTH WAYS. ALL BAR DOWELS AND ANCHOR BOLTS MUST BE POSITIONED BEFORE CONCRETE IS PLACED.
- 5. ALL REINFORCING BARS ARE TO BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACT "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". SHRINKAGE AND TEMPERATURE STEEL SHALL HAVE A MINIMUM 30 BAR DIAMETER LAP. BASIC SPLICE LENGTHS SHALL BE TYPE C FOR CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI.
- 6. ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED.
- 7. PROVIDE CONSTRUCTION JOINTS OR CONTROL JOINTS IN THE SLAB ON GRADE AS SHOWN ON THE PLANS.

## CONSTRUCTION AND CONTROL JOINTS

- CONSTRUCTION JOINTS SHALL BE LOCATED NEAR THE CENTER OF SPANS OF SLABS, BEAMS OR GIRDERS EXCEPT AT INTERSECTIONS OF BEAMS OR GIRDERS, IN WHICH CASE JOINTS SHALL BE OFFSET A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM AND PROVISIONS SHALL BE MADE FOR TRANSFER OF SHEAR AND OTHER FORCES THROUGH THE CONSTRUCTION JOINT UNLESS OTHERVISE SHOWN ON THE DRAWINGS.
- 2. REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS
- 3. WHERE A JOINT IS MADE, THE SURFACE OF THE CONCRETE SHALL BE ROUGHENED. WHERE A JUINI IS MADE, THE SURFACE OF THE CONCRETE SHALL BE ROUGHENED. THERDUGHLY CLEANED AND ALL LATTANCE REMOVED. IN ADITION, VERTICAL JUINTS SHALL BE THERDUGHLY WETTED AND SLUSHED WITH A COAT OF NEAT CEMENT GROUT IMMEDIATELY BEFORE PLACING NEW CONCRETE.
- SLABS ON GRADE OR NON-STRUCTURAL SLABS SHALL HAVE CONTROL JOINTS IN BOTH DIRECTIONS SPACED AT NOT MORE THAN 10'-0' ON CENTER. ISLIGATION JOINTS SHALL BE PROVIDED AROUND COLUMNS AND AT INTERSECTIONS OF SLABS AND VALLS. CONTROL JOINTS SHALL BE PROVIDED ON EXPOSED SURFACES OF VALLS, SPACED AT NOT MORE THAN 25'-0' ON CENTER.

## MASONRY

- ALL CONCRETE BLOCK MASONRY SHALL CONFORM TO ASTM C90 FOR NURMAL WEIGHT (135PCF) BLOCK WITH MINIMUM NET AREA COMPRESSIVE STRESS OF 1900 PSI.
- 2. ALL MASONRY WALLS SHALL HAVE TRUSS TYPE HORIZONTAL JOINT REINFORCEMENT WITH TWO V 1.7 SIDE RODS, SPACE HORIZONTAL REINFORCEMENT AT 16' D.C. VERTICALLY.
- 3. ALL REINFORCING SHALL BE SECURED IN PLACE AND INSPECTED BEFORE GROUTING.
- 4. ALL BOND BEAMS SHALL BE GROUTED SOLID AND HAVE 2- #5 CONTINUOUS BARS UNLESS OTHERWISE NOTED. HORIZIDITAL BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS AROUND ALL CORNERS OF THE STRUCTURE. REINFORCEMENT SHALL BE DETAILED AND PLACED TO PROVIDE PROPER ANCHORAGE WITH HOUSE OR BENDS.
- 5. ALL BOLTS, ANCHORS, ETC. INSERTED INTO THE MASONRY WALLS SHALL BE HOT-DIPPED GALYANIZED AND SOLIDLY GROUTED IN PLACE.
- 6. FILL CELLS WITH GROUT AT ALL BOND BEAMS, REINFORCED PILASTERS, AND FOR 3 COURSES UNDER BEARING OF LINTELS AND BEAMS, UNLESS NOTED OTHERWISE.
- VERTICAL REINFORCING STEEL SHALL HAVE A MINIMUM CLEARANCE OF 3/4" FROM THE MASONRY.
- 8. ALL REINFORCING STEEL FOR THE MASONRY SHALL BE GRADE 60, 60,000 PSI YIELD POINT DEFORMED BARS IN ACCORDANCE WITH THE LATEST ASTM SPECIFICATIONS.

## SPLIT FACE CONCRETE MASONRY UNITS

- 1. 8'x8'x16' MODULAR SIZE SPLIT FACE LDAD BEARING CONCRETE MASDNRY UNITS FOR EXTERIOR USE AS SELECTED BY OWNER FROM MANUFACTURE'S STANDARD.
- INSTALL IN RUNNING BOND, FORM VERTICAL AND HORIZONTAL JOINTS OF UNIFORM THICKNESS.
- 3. PROVIDE MATCHING CORNER, BOND BEAMS, LINTEL, INFILL, ETC. CONCRETE MASONRY UNIT PLACES AS REQUIRED.
- MORTAR FOR REINFORCED MASDNRY: ASTM C270, TYPE S USING THE PROPERTY METHOD. COLOR SELECTED BY DWNER. CONCAVE MORTAR JOINTS.
- 5. REINFORCING STEEL: ASTM A615, 60 KS1 YIELD GRADE, DEFORMED BILLET STEEL BARS.
- 6. HORIZONTAL REINFORCING TRUSS TYPE, HOT DIPPED GALVANIZED COLD DRAWN STEE
- CONFORMING TO ANSI/ASTM A82, %6" SIDE RODS WITH NO. 9 CROSS TIES, AT 16" D.C.
- 7. INSTALL EXPANSION AND CONTROL JOINTS AS REQUIRED BY STANDARD MASONRY PRACTICE. VERIFY LOCATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.

### STANDARD CONCRETE MASONRY UNITS

- 8'x8'x16' MODULAR SIZE CONCRETE MASONRY UNITS, ASTM C90, GRADE N, TYPE 1 -MOISTURE CONTROLLED, NORMAL WEIGHT.
- INSTALL IN RUNNING BOND, FORM VERTICAL AND HORIZONTAL JOINTS OF UNIFORM THICKNESS.
- PROVIDE MATCHING CORNER, BOND BEAMS, LINTEL, INFILL, ETC. CONCRETE MASCHRY UNIT PIECES AS REQUIRED.
- 4. MORTAR FOR REINFORCED MASONRY: ASTM C270, TYPE S USING THE PROPERTY METHOD. COLOR SELECTED BY OWNER. CONCAVE MORTAR JOINTS.
- 5. REINFORCING STEEL: ASTM A615, 60 KSI YIELD GRADE, DEFORMED BILLET STEEL BARS.
- 6. HORIZONTAL REINFORCING TRUSS TYPE, HOT DIPPED GALVANIZED COLD DRAWN STEEL CONFORMING TO ANSI/ASTM A82, 36' SIDE RODS WITH NO. 9 CROSS TIES, AT 16' D.C.
- INSTALL EXPANSION AND CONTROL JOINTS AS REQUIRED BY STANDARD MASUNRY PRACTICE, VERIFY LOCATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.

#### GROUT MIXES

- 2. REFER TO DRAWINGS FOR LOCATION OF GROUTED MASONRY WALLS
- 3. GROUT LIFT HEIGHTS SHALL BE LIMITED TO 5 FEET. A LIFT OF GROUT SHALL BE PERMITTED TO SET FOR MORE THAN 2 HOURS PRIOR TO PLACING ANY SUBSEQUENT LIFTS.

## STRUCTURAL STEEL

- 1. ALL STRUCTURAL STEEL SHALL BE ASTM A-36, FY=36,000 PSI YIELD PUINT DR GREATER.
- 2. ALL STRUCTURAL STEEL SHALL BE PROPERLY GUYED AND BRACED UNTIL THE COMPLETE FLOOR AND ROOF FRAMING IS COMPLETED.
- ALL BOLTS CONNECTIONS SHALL BE DESIGNED FOR LOADS BASED UPON AISC LOAD SPAN TABLES USING 3/4" ROUND A-325 HIGH STRENGTH BOLT, UNLESS OTHERWISE NOTED.
- SEE MECHANICAL DRAWINGS FOR ANY ROOF OPENINGS, PIPE SLEEVES, ETC. WHICH WILL BE REQUIRED.
- 5. ALL TESTING OF WELDS SHALL CONFORM TO THE ANSI/AWS SPECIFICATIONS FOR ULTRASONIC TESTING.
- ALL BEAMS BEARING ON MASONRY SHALL HAVE 8" MINIMUM BEARING ON REINFORCED PILASTERS.
- 7. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A-307, AND SHALL BE HUT-DIPPED GALVANIZED.
- 8. ALL WELDS SHALL BE MADE BY CERTIFIED WELDERS
- 9. ALL STEEL SHALL BE PRIMED AND PAINTED.

# FRAMING WOOD

- 1. ALL FRAMING WOOD SHALL BE NO. 2 SOUTHERN PINE (SPF) OR BETTER.
- 2. ALL NAILING & FASTENING SHALL BE IN ACCORDANCE WITH THE 2003 IBC CODE FASTENING SCHEDULE, TABLE 2304.9.1, UNLESS NOTED OTHERWISE.
- 3. PROVIDE SIMPSON STRONG TIE CONNECTORS, JOIST HANGERS ETC. AS INDICATED ON DRAWINGS.
- 4. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY AND FOR EXTERIOR USE SHALL BE WOLMANIZED (PRESERVATIVE PRESSURE TREATED)
- 5. BUILDING PAPER: 15# BUILDING PAPER

## PREFABRICATED WOOD TRUSS OPTION

IF THE CONTRACTOR CHOOSES TO USE PREFABRICATED WOOD TRUSSES, THE FOLLOWING NOTES SHALL APPLY:

- 1. DESIGN OF WOOD TRUSSES IS THE SOLE RESPONSIBILITY OF THE MANUFACTURER, FABRICATION AND DESIGN SHALL MEET THE FOLLOWING CRITERIA (LATEST EDITIONS)
  - 1. "NATIONAL DESIGN SPECIFICATION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. 2. "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED VOOD TRUSSES" BY THE TRUSS
  - PLATE INSTITUTE.

    3. 'TIMBER CONSTRUCTION MANUAL' BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
- 2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS THAT HAVE BEEN SEALED BY A LICENSED STRUCTURAL ENGINEER FOR THE STATE OF ILLINDIS FOR REVIEW. DRAWINGS SHALL SHOW THE DESIGN LOBDS, MEMBER STRESSES, AND MEMBER DESIGNS. THE CONTRACTOR SHALL ALSO PROVIDE AN ERECTION DRAWING ALONG WITH THE SHOP DRAWINGS.
- 3. ERECTION AND TEMPORARY BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR THE COST FOR FURNISHING AND INSTALLING THIS BRACING SHALL BE INCLUDED IN THE CONTRACTORS BID. BRACING REQUIREMENTS SHALL MEET THE TRUSS PLATE INSTITUTES PUBLICATION BVT-76, "BRACING VOID TRUSSES: COMMENTARY AND RECOMMENDATIONS.
- 4. TRUSSES SHOWN ARE FOR SCHEMATIC AND DIMENSIONS ONLY. THE MANUFACTURE SHALL DETERMINE THE WEB CONFIGURATION, MEMBER SIZE, MEMBER STRESSES AND LUMBER GRADES.
- 5. WOOD ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOADS:

  1. TOP CHORD LIVE LOAD = 20 POUNDS PER SQUARE FOOT

  2. TOP CHORD DEAD LOAD = 16 POUNDS PER SQUARE FOOT

  3. BOTTOM CHORD DEAD LOAD = 10 POUNDS PER SQUARE FOOT
- 6. CAMBER TRUSSES FOR THE DEAD LOAD PLUS 1/2 OF THE LIVE LOAD.
- 7. SEE THE ARCHITECTURAL DRAWINGS FOR ROOF FRAMING.

## GUTTERS AND DOWN SPOUTS

1. VERIFY LOCATION AND CONNECTION OF ALL DOWN SPOUTS WITH ARCHITECTURAL DRAWINGS.

#### MISCELLANEOUS

- DIMENSION VERIFICATION VERIFY DIMENSIONS OF OPENINGS IN FLOORS, RODES, WALLS, AND ASSOCIATED SURROUNDING FRAMING AND ANCHOR BOLT SIZES AND LOCATIONS WITH ANY MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED FOR THE PROJECT.
- FOR OPENING SLEEVES, BLOCK DUTS AND EMBEDDED ITEMS, NOT SHOWN ON THE STRUCTURAL DRAWTHOS, REFER TO THE ARCHITECTURAL, MECHANICAL, CIVIL, AND ELECTRICAL DRAWTHOS.
- SEE THE ARCHITECTURAL PLANS, ELEVATIONS, DETAILS, AND SPECIFICATIONS FOR TYPES AND LOCATIONS OF FLOOR AND WALL FINISHES.
- 4. ALL GROUT SHALL BE NONMETALLIC, NON-SHRINK GROUT INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS.
- 5. THE GRANULAR BASE COURSE SHALL BE APPROVED BY THE ARCHITECT
- 6. ALL COLUMNS AND FOOTINGS ARE CENTERED ON COLUMN LINES, EXCEPT WHERE OTHERWISE SHOWN ON THE PLANS OR SECTIONS.
- DURING CONSTRUCTION OPERATIONS, TEMPORARY BRACING AND/OR SHORING SHALL BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING EQUIPMENT AND THE OPERATION OF SAME. SUCH BRACING AND/OR SHORING SHALL BE LEFT IN PLACE AS LONG AS MAY BE DECULEDED. FOR SAME
- 8, NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
- 9. NO CHANGE IN SIZES OR DIMENSIONS OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
- 10. DPENING'S 1'-0' AND LESS ON THE ROOF ARE GENERAL NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH DEPNINGS.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING AND LOAD BEARING WALLS. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF STRUCTURAL ELEMENTS AT ANY TIME DURING THE CONSTRUCTION.
- 12. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS.
- 13. THE CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL FLEMENTS DURING THE CONSTRUCTION PERIOD. EXPANSION JOINTS SHOWN ON THE DRAVINGS HAVE BEEN DESIGNED TO ACCOMMODATE ANTICIPATED THERMAL MOVEMENT AFTER THE BUILD DINK: IS COMPLETE.
- 14. THE CONTRACTOR SHALL INFORM THE ARCHITECT IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESEPONSIBILITY FOR SUCH DEVIATION BY THE ARCHITECT'S APPROVAL OF THE SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT OF SUCH DEVIATIONS AT THE TIME OF SUBMISSION, AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
- 15. ALL ITEMS WHICH IN THE DPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, DMISSIONS, CONTRADICTIONS OR AMBIGUITIES, IN THE PLANS AND SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PLANS AND/OR SPECIFICATIONS WILL BE CORRECTED, OR VEITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, DMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ARCHITECT BEFORE THE EFFECTED WORK PROCEEDS.



